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Abstract

1.1 Process for fabricating active and passive, polymer-based components for use in integrated optics.

5 2.1 The object of the process according to the present invention is to fabricate active and passive optoelectronic components of a high quality, and having a high level of integration and high packing density.

10 2.2 According to the present invention, a patternable polymer resist layer of a high quality is deposited onto an optoelectronic component. An etching mask is used in conjunction with a high-grade anisotropic deep etching to produce a pattern which is filled with monomers through gas-phase or liquid-phase diffusion. The optical properties of the optical component can be selectively changed as a function of the type of monomers used for the diffusion, as well as of the temperature and application time.

15 2.3 The process according to the present invention makes it possible to increase the packing density of future integrated monomode optics and simultaneously produce large quantities in a cost-effective manner.

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*Fig. 1*